

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-11 were pending in this application. Claims 1 and 6 have been amended hereby to more clearly recite features of the present invention. Support for the amendments to claims 1 and 6 can be found in, e.g., Table 1 at p. 33, and paragraphs [0060] – [0061] of the instant specification. No new matter has been entered. Upon entry of this amendment, claims 1-11 will be pending herein, with claims 1 and 6 being independent. For the reasons stated below, Applicant respectfully submits that all claims pending in this application are in condition for allowance.

Applicant's representatives thank the Examiner for the courtesies extended during the telephone interview conducted January 9, 2007. The substance of that interview is incorporated into the following remarks.

In the Office Action, claims 1-11 were rejected under 35 U.S.C. §102(b) as being anticipated by Ghosh et al. ("An automated approach for identifying potential vulnerabilities in software," "Ghosh"). To the extent this ground of rejection might be applied to the claims presently pending in this application, they are respectfully traversed.

The claimed invention is directed to a method and system for certifying software applications by creating a vulnerability knowledge database comprising one or more classes of known software vulnerabilities; applying a code parser to the software application to create an abstract syntax tree; comparing the abstract syntax tree and the classes of known software vulnerabilities to identify a set of potential exploitable software vulnerabilities; performing a

static analysis of the source code, wherein the static analysis is a flow sensitive analysis of a list of constraints, and wherein the results of the static analysis comprise a set of exploitable software vulnerabilities; performing a first dynamic analysis of the software, wherein the first dynamic analysis comprises a set of tests to achieve code coverage; performing a second dynamic analysis of the software, wherein the second dynamic analysis comprises injecting faults into the software while being executed; and performing any two of said analysis steps in a pipelined manner.

Claims 1 and 6 have been further amended to recite that a constraint is a formal assertion describing how a program, function or procedure would affect a state of the software application if the software application were executed. That is, the “constraints” recited in the claims are “assertions,” not, e.g., functions. More specifically, the “constraints” recited in the claims are like those shown in the right hand column of Table 1 at p. 33 of the specification. This is in contrast to the entries on the left hand side of Table 1, which are merely standard library functions. Moreover, as explained in, e.g., paragraphs [0060]-[0061] of the specification, the “constraints” of the invention recited in the claims are generated from the standard library functions.

Ghosh is completely silent regarding any kind of formal assertion used as a constraint in its vulnerability testing, let alone such a constraint that is generated from a standard library function. Thus, as explained during the telephone interview, and set forth above, Ghosh cannot anticipate the claims now pending in this application, and Applicant therefore respectfully requests that the §102(b) rejection be reconsidered and withdrawn.

It is noted also that the claims have been amended to expressly recite that the claimed method or system is used for software certification, as recited in the preambles of the claims.

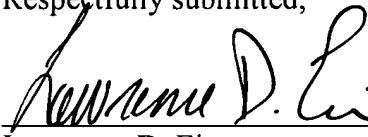
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In view of the foregoing, all of the claims in this application are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicant's undersigned representative at the number listed below.

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Attachments: None

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